

What is claimed is:

1. A LAN system for causing a base station that is inside a LAN to determine whether or not to authenticate a terminal station outside of said LAN and to permit said terminal station to access a predetermined server or network-connected device when said terminal station has not been authenticated,

wherein said base station comprises:

an interface portion for making a communication with said terminal station and extracting authentication request information and a reception packet therefrom;

a first authentication managing portion for determining whether or not to authenticate said terminal station for said LAN corresponding to said authentication request information received from said interface portion and setting a result of the determination to a first packet distributing table; and

a first packet distributing portion for referencing registered contents of said first packet distributing table for the packet received from said interface portion, transferring the packet received from said interface portion to said LAN when said contents of said first packet distributing table represent that said terminal station has been authenticated for said LAN, and transmitting the packet received from said interface portion to said predetermined server or network-connected device when said contents of said first packet distributing table represent that said terminal station has not been authenticated for said LAN.

2. The LAN system as set forth in claim 1,  
wherein said base station further comprises:

a second authentication managing portion;  
a second packet distributing portion; and  
a second packet distributing table for storing a plurality of  
destinations,

5            wherein said second authentication managing portion is configured  
for determining whether or not to authenticate said terminal station  
corresponding to said authentication request information and setting a  
result of the concerned determination to said second packet distributing  
portion when the result of the determination of said first authentication  
10          managing portion represents that said terminal station has not been  
authenticated for said LAN,

             wherein said first packet distributing portion is configured for  
transferring the packet received from said terminal station to said second  
packet distributing portion when said registered contents of said first packet  
15          distributing table represent that said terminal station has not been  
authenticated for said LAN, and

             wherein said second packet distributing portion is configured for  
referencing the registered contents of said second packet distributing table  
for the packet received from said first packet distributing portion and  
20          transmitting the packet received from said terminal station to an  
appropriate server or network-connected device corresponding to a  
destination to which the packet is distributed.

3.        The LAN system as set forth in claim 1,

25            wherein said first authentication managing portion is configured for  
issuing an authentication request to an inner LAN authenticating server

and setting a response to the authentication request to said first packet distributing table.

4. The LAN system as set forth in claim 2,

5 wherein said second authentication managing portion is configured for issuing an authentication request to an inner LAN authenticating server and setting a response to the authentication request to said second packet distributing table.

10 5. A LAN base station for determining whether or not to authenticate a terminal station outside of a LAN and permitting said terminal station to access a predetermined server or network-connected device when said terminal station has not been authenticated, said LAN base station comprising:

15 an interface portion for making a communication with said terminal station and extracting authentication request information and a reception packet therefrom;

20 a first authentication managing portion for determining whether or not to authenticate said terminal station for said LAN corresponding to said authentication request information received from said interface portion and setting a result of the determination to a first packet distributing table; and

25 a first packet distributing portion for referencing registered contents of said first packet distributing table for the packet received from said interface portion, transferring the packet received from said interface portion to said LAN when the contents of said first packet distributing table represent that said terminal station has been authenticated for said LAN,

and transmitting the packet received from said terminal station to said predetermined server or network-connected device when the registered contents of said first packet distributing table represent that said terminal station has not been authenticated for said LAN.

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6. The LAN base station as set forth in claim 5, further comprising:
- a second authentication managing portion;
  - a second packet distributing portion; and
  - a second packet distributing table for storing a plurality of destinations,

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wherein said second authentication managing portion is configured for determining whether or not to authenticate said terminal station corresponding to said authentication request information and setting a result of the concerned determination to said second packet distributing portion when the result of the determination of said first authentication managing portion represents that said terminal station has not been authenticated for said LAN,

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wherein said first packet distributing portion is configured for transferring the packet received from said terminal station to said second packet distributing portion when said registered contents of said first packet distributing table represent that said terminal station has not been authenticated for said LAN, and

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wherein said second packet distributing portion is configured for referencing the registered contents of said second packet distributing table for the packet received from said first packet distributing portion and transmitting the packet received from said terminal station to an

appropriate server or network-connected device corresponding to a destination to which the packet is distributed.

7. The LAN base station as set forth in claim 5,

5 wherein said second authentication managing portion is configured for issuing an authentication request to an inner LAN authenticating server and setting response to the authentication request to said first packet distributing table.

10 8. The LAN base station as set forth in claim 6,

wherein said second authentication managing portion is configured for issuing an authentication request to an inner LAN authenticating server and setting response to the authentication request to said second packet distributing table.

15 9. A method for distributing a packet from a terminal station that accesses a LAN base station from the outside of a LAN, said method comprising the steps of:

20 determining whether or not to authenticate said terminal station for said LAN corresponding to an authentication request issued from said terminal station;

registering an authentication permission with a first packet distributing table when a result of the determination represents that said terminal station has been authenticated;

25 registering an authentication refusal with said first packet distributing table when the result of the determination represents that said

terminal station has not been authenticated;

sending an authentication permission response to said terminal station after registering said authentication permission or said authentication refusal with said first packet distributing table;

5 receiving a packet from said terminal station and determining which of said authentication permission and said authentication refusal is registered with said first packet distributing table for said terminal station;

transmitting the packet to said LAN when said authentication permission is registered with said first packet distributing table for said terminal; and

10 transmitting the packet to a server or network-connected device when said authentication refusal is registered with said first packet distributing table for said terminal.

15 10. The packet distributing method as set forth in claim 9,

wherein said base station has a second packet distributing table for storing a plurality of destinations to which packets are distributed, and wherein said method further comprises the step of:

20 referencing the registered contents of said second packet distributing table for the packet received from said terminal station and transmitting the packet received from said terminal station to an appropriate server or network-connected device corresponding to a destination corresponding to the registered contents of said second packet distributing table when said authentication refusal is registered with said first packet distributing table

25 for said terminal.